

**JULY 1, 2001 THROUGH DECEMBER 31, 2001
SEMIANNUAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SAMPLE COLLECTION DATES: OCTOBER 16 -18, 2001
MCCORMICK & BAXTER CREOSOTING COMPANY SITE
PORTLAND, OREGON
(ug/L)**

Sample Identification	Analytes									
	Arsenic	Copper	Chromium	Zinc	PCP	Total PAHs	Total LPAHs	Total HPAHs	Total CPAHs	2,3,7,8-TCDD TEQ
EW-19s	-	-	-	-	-	-	-	-	-	-
MW-Ks	5.90	2 U	1 U	97.6	1.10	MRL	MRL	MRL	MRL	-
MW-Qs (Duplicate of MW-Ks)	5.41	2 U	1 U	99.7	-	0.106	0.106	MRL	MRL	-
MW-LRs	20.1	2.56	4.55	23.3	1 U	2,443 J	2,439 J	3.63	0.45	0.0000050
MW-Os	10.8	50.9	15.9	725	1 U	MRL	MRL	MRL	MRL	-
MW-2s	1.82	6.75	7.63	12.7	1 U	0.71	0.59	0.12	MRL	-
MW-3s	3.74	2 U	3.30	5.03	1 U	MRL	MRL	MRL	MRL	-
MW-4s	14.2	6.36	11.5	16.4	1 U	2.59	2.59	MRL	MRL	-
MW-8i	223	23.0	6.64	108	841	14,256 J	10,988 J	3,268 J	991 J	-
MW-13i	25.4	2 U	1.61	5 U	1 U	2.00	1.55	0.45	MRL	-
MW-19s	-	-	-	-	1 U	-	-	-	-	-
MW-18s	29.1	2 U	1.16	53.2	1 U	351 J	14.1	337	3.20	-
MW-23d	3.00	2 U	1 U	5 U	1 U	1.70	0.96	0.74	MRL	-
MW-25s	33.0	6.43	6.81	14.4	1 U	1,344 J	1,342 J	2.02	0.73	0.0000056
MW-35s	1 U	2 U	1 U	5 U	1 U	MRL	MRL	MRL	MRL	-
MW-31s	19.5	3.33	4.69	5.51	1 U	166	165	0.85	MRL	-
RINSATE	1 U	2 U	1 U	5 U	1 U	0.34	0.22	0.12	MRL	-

ACL CONCENTRATIONS (ug/L)										
Arsenic	Copper	Chromium	Zinc	PCP	Total PAHs	Total LPAHs	Total HPAHs	Total CPAHs	2,3,7,8-TCDD TEQ	
1,000	1,000	1,000	1,000	5,000	43,000	-	-	-	0.0002	

Notes:

Analyte detections, above reporting limits, are shown in reverse highlighted text.

North Creek Analytical, Inc. did not perform the laboratory analysis for PCP in groundwater for samples submitted October 19, 2001. Results listed for MW-8i, MW-4s, and MW-Ks are for samples collected on January 31, 2002. PCP will be reported for the 1st Semi-Annual monitoring event in 2002.

Groundwater samples were not collected from EW-19s and MW-19s in October 2001 because of the presence of lighter-than-water nonaqueous phase liquid (LNAPL) in the well.

Total arsenic, chromium, copper, and zinc analysis by EPA Method 6000/7000 series.

Key:

█ = Concentration exceeds the ACL.

ACL = Alternative cleanup level, as listed in the EPA Record of Decision.

CPAHs = Carcinogenic PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h.)anthracene, and indeno(1,2,3-cd)pyrene).

EPA = United States Environmental Protection Agency.

HPAHs = High molecular weight PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, fluoranthene, chrysene, dibenzo(a,h.)anthracene, pyrene, and indeno(1,2,3-cd)pyrene).

J = Concentration qualified as estimated based on QA/QC results associated with this sample.

LPAHs = Light-molecular weight PAHs (acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and phenanthrene)

MRL = Analyzed for, but not detected. Multiple compounds represented; therefore, no reporting limit is displayed.

PAHs = Polynuclear aromatic hydrocarbons by EPA Method 8270 SIM.

PCP = Pentachlorophenol by EPA Method 8270 SIM.

SIM = Selective ion monitoring.

2,3,7,8-TCDD TEQ = 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalency quotient by EPA Method 1613.

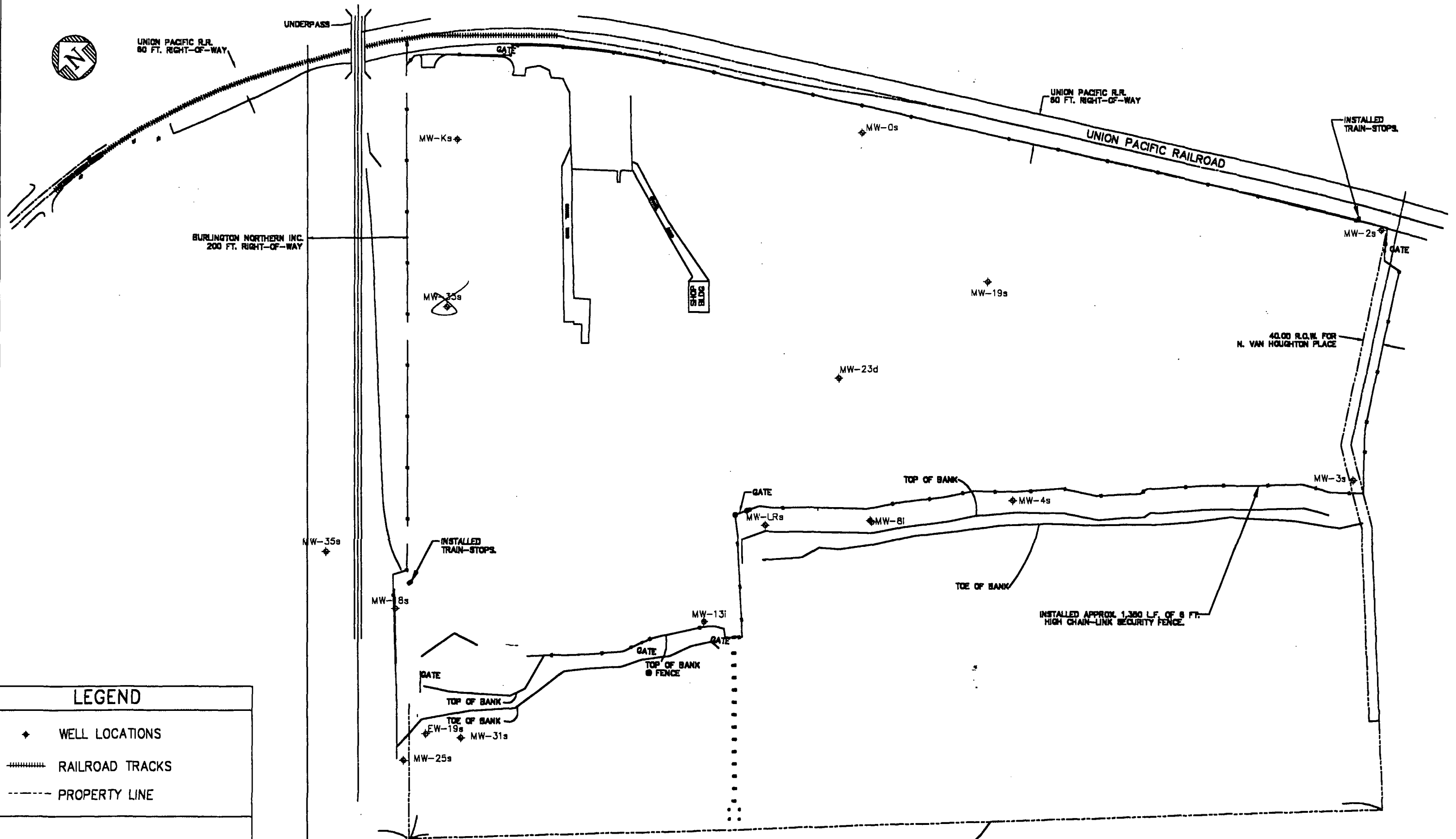
U = Compound was analyzed for, but was not detected; the corresponding value is the maximum reporting limit for the analyte.

ug/L = Micrograms per liter.

-- = Not available, not applicable, or not analyzed.

TCDD = Tetrachlorodibenzo-p-dioxin.





LEGEND

- ◆ WELL LOCATIONS
- RAILROAD TRACKS
- PROPERTY LINE

Wells sampled for dissolved constituents in October 2001

ecology and environment, inc.
International Specialists in the Environment
Portland, Oregon

PROJECT No. 002746.00/07.00

CHECKED BY: M. GORMAN

DRAWN BY: A. WATSON

FIGURE 1
MONITORING WELL NETWORK
MAY 2002
McCORMICK & BAXTER
CREOSOTING CO.
PORTLAND, OREGON

DATE: 07-16-01
SCALE: 1" = 100'
SHEET: 1 of 1

NAPL WELL CLASSIFICATIONS
JULY 1 THROUGH DECEMBER 31, 2001
MCCORMICK & BAXTER CREOSOTING COMPANY
PORTLAND, OREGON

Well ID	3rd Quarter 1997	4th Quarter 1997	1st Quarter 1998	2nd Quarter 1998	2nd Half 1998	1st Half 1999	2nd Half 1999	1st Half 2000	2nd Half 2000	1st Half 2001	2nd Half 2001
Tank Farm Area											
EW-1s	●	●	●	●	⊕	●	⊕	-	⊕	⊕	⊕
EW-4s	●	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
EW-5s	●	●	●	●	●	●	-	-	⊕	⊕	⊕
EW-7s	●	⊕	⊕	⊕	●	⊕	●	⊕	⊕	⊕	⊕
EW-8s	⊕	⊕	⊕	●	⊕	●	-	-	-	⊕	⊕
EW-12s	●	●	●	●	⊕	⊕	-	-	-	●	⊕
EW-17s	●	⊕	⊕	●	●	⊕	●	⊕	⊕	⊕	⊕
EW-18s	●	⊕	⊕	⊕	●	⊕	-	-	⊕	⊕	⊕
EW-24s	-	-	-	-	⊕	●	●	●	●	●	●
EW-25s	-	-	-	-	⊕	⊕	⊕	⊕	⊕	⊕	⊕
MW-1s	●	●	●	●	●	●	-	-	-	-	●
MW-LRs	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	-	-
MW-PS	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	-
MW-Rs	⊕	⊕	⊕	⊕	●	⊕	●	●	⊕	⊕	⊕
MW-7s	⊕	⊕	●	⊕	⊕	⊕	●	-	⊕	⊕	⊕
MW-8i	⊕	⊕	⊕	⊕	⊕	⊕	-	-	⊕	⊕	⊕
MW-10s	●	⊕	⊕	●	●	⊕	●	●	⊕	⊕	⊕
MW-11s	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	-
MW-22i	⊕	⊕	⊕	●	●	⊕	-	-	-	⊕	⊕
TM-1s	-	-	-	-	-	-	⊕	⊕	-	⊕	⊕
TM-3s	-	-	-	-	-	-	⊕	⊕	-	⊕	⊕
TM-4s	-	-	-	-	-	-	⊕	⊕	-	⊕	⊕
TM-5s	-	-	-	-	-	-	⊕	⊕	⊕	⊕	⊕
Former Waste Disposal Area											
EW-2s	⊕	⊕	⊕	⊕	●	●	●	⊕	⊕	⊕	⊕
EW-3s	⊕	⊕	●	●	●	⊕	⊕	⊕	⊕	⊕	⊕
EW-6s	●	●	●	⊕	●	●	●	-	-	⊕	⊕
EW-9s	⊕	●	●	●	●	⊕	●	⊕	⊕	⊕	⊕
EW-10s	●	⊕	⊕	⊕	⊕	⊕	●	●	⊕	⊕	⊕
EW-13s	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
EW-14s	⊕	●	●	●	●	⊕	●	●	⊕	⊕	⊕
EW-15s	●	⊕	●	⊕	⊕	●	⊕	⊕	⊕	⊕	⊕
EW-19s	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
EW-20s	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕
EW-22s	-	-	-	-	⊕	⊕	⊕	⊕	⊕	⊕	⊕
EW-23s	-	-	-	-	⊕	⊕	●	●	⊕	⊕	⊕
MW-Ds	⊕	●	●	●	●	●	⊕	-	-	⊕	⊕
MW-Es	●	●	●	●	●	⊕	-	-	-	⊕	⊕
MW-Gs	●	●	●	●	●	●	⊕	-	-	⊕	⊕
MW-18s	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
MW-20i	⊕	●	●	●	●	⊕	⊕	-	-	⊕	⊕
MW-21s	●	●	●	●	●	●	●	●	⊕	⊕	⊕
Other Areas											
EW-11s	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
MW-1s	⊕	⊕	●	●	⊕	⊕	⊕	⊕	⊕	⊕	⊕
MW-19s	⊕	⊕	⊕	●	●	⊕	⊕	⊕	⊕	⊕	⊕
MW-35s	-	-	-	-	⊕	⊕	⊕	⊕	⊕	⊕	⊕

Key:

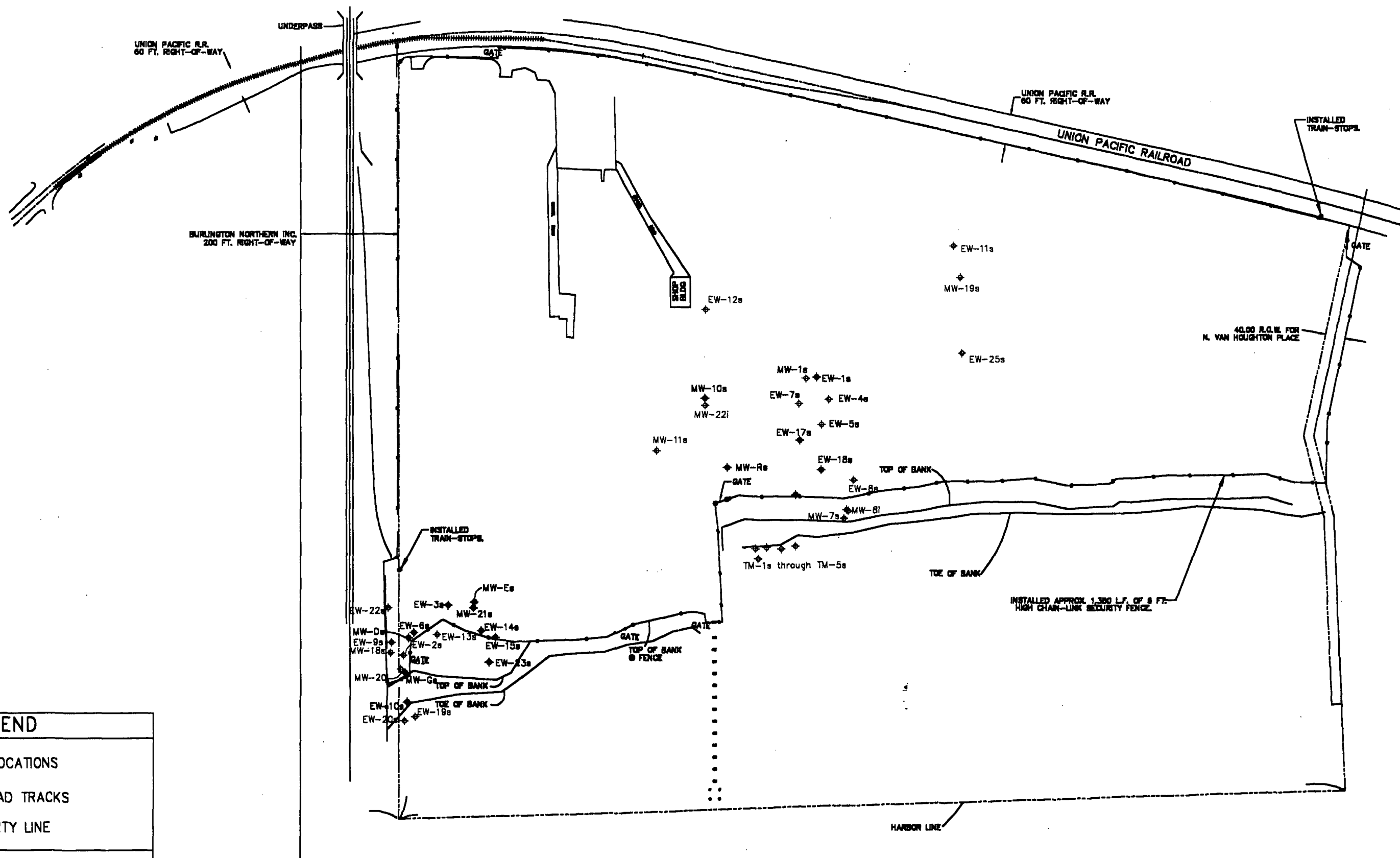
- ⊕ = LNAPL thicknesses measured during reporting period.
- ⊕ = DNAPL thicknesses measured during reporting period.
- = LNAPL and DNAPL thicknesses measured during reporting period.
- ⊕ = No NAPL thicknesses measured during reporting period.
- = Not measured.

DNAPL = Denser-than-water nonaqueous phase liquid.

ID = Identification.

LNAPL = Lighter-than-water nonaqueous phase liquid.

NAPL = Nonaqueous phase liquid.



LEGEND

- ◆ WELL LOCATIONS
- RAILROAD TRACKS
- PROPERTY LINE

MW-35s Wells sampled for dissolved constituents in October 2001

SCALE IN FEET
0 200 400 600

ecology and environment, inc. International Specialists in the Environment Portland, Oregon	
PROJECT No: 000746.0001.27.00	
CHECKED BY: H. OGDEN	
DRAWN BY: H. OGDEN	

FIGURE 2
NAPL EXTRACTION WELL NETWORK
 MAY 2002
 MCCORMICK & BAXTER
 CREOSOTING CO.
 PORTLAND, OREGON

DATE	05-01-02	SCALE	AS SHOWN	FIGURE NO.	1 of 1
NOTED					